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## **Thailand**

## **Solid Wood Products**

## **Annual**

## **2002**

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### **Report Highlights:**

**Thailand's solid wood product imports may increase in 2002 and 2003. The U.S. market share would also be on a rise.**

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Includes PSD changes: Yes  
Includes Trade Matrix: Yes  
Annual Report  
Bangkok [TH1], TH

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## **EXECUTIVE SUMMARY**

Prior to 1989, Thailand unsuccessfully fought a deforestation crisis. However, after the logging ban in 1989, the government has modified its forest management policy, shifting from depending only on government offices to manage forestry activities to the introduction of private participation. Several projects on private reforestation and local community's forest conservation were conducted in the past decade. As a result, total forest area should be stable or even increase slightly in the next 4-5 years. Nevertheless, it is too early for Thailand in the near future to reach its sustainable production.

Because of a ban on commercial logging in national forest areas, the Thai furniture industry has successfully struggled to develop the use of parawood timber from rubber plantation to substitute for typical timber from forest area. At the moment, 1.7-1.8 million cubic meters of parawood lumber are being used for domestic furniture products and exported. However, imports of tropical and temperate hardwood has been on the rise in the past decade to fill the demand gap. Thailand's solid wood product imports may increase by 4-5 percent in 2002 and 2003, following increased market demand in domestic construction, decoration and renovations, decreased domestic supplies, and a likelihood of continued growing exports of wooden furniture products. The U.S. market share in Thai imports is anticipated to increase in these two years, due to its price competitiveness against high-quality tropical woods and other non-American temperate hardwoods.

As mentioned in the last annual reports, there is a high potential for U.S. hardwood imports to grow in the Thai market. However, the marketing strategies in promoting U.S. hardwoods need to be directed toward education on the proper application and their cost-benefit value.

## PRODUCTION

### *Forest Situation/Outlook*

Thailand underwent a massive deforestation between 1961 and 1989, with over a half of its forest area eradicated through logging concessions and illegal logging. In 1989, when the Thai Government decided to abolish the concession for commercial logging in all government forest areas, the forest area accounted for 27.95 percent of total area for the kingdom (excluding rubber plantation area). Despite several projects on forest conservation since 1989, illegal logging and encroachment activities have continued and caused forest area to decline further. The Royal Forest Department (RFD) reports that the existing forest area in 1998 (the latest data) was 129,722 square kilometers, accounting for 25.28 percent of total area. However, by the government's definition, the official forest area does not include rubber plantation area of 19,562 square kilometers in 1998. The total forest area was reportedly composed of tropical evergreen forest (40 percent), mixed deciduous forest (34 percent), dry dipterocarp forest (21 percent), and others (5 percent), respectively.

Prior to 1989, the Thai Government unsuccessfully fought deforestation crisis. The government began reforestation projects on depleted forest land and tried to stop illegal logging and encroachment activities by arresting cutters and intruders. The Forest Industry Organization (FIO) was established in 1947 for the purposes of reforestation and commercial logging. Nevertheless, illegal deforestation have continued and led to decreasing forest area, due to a lack of good sustainable forest management, corruption, and increased demand for agricultural land use.

After the logging ban in 1989, the government, influenced by the Royal Family, modified its forest management policy. Instead of depending only on government offices (especially the Royal Forest Department) to manage forestry activities (forest harvesting, forest conservation, watershed management, forest protection, and forest plantation), private participation was introduced. As a result, the total forest area should be stable or even increase slightly in the next 4-5 years. Nevertheless, it is too early for Thailand in the near future to reach its sustainable production. The key projects on private participation have been made thus far as follows:

- 1) The Private Reforestation Extension Project (PREP): The PREP was initiated in 1994 by the Royal Forest Department in which the government partly funded farmers for forest plantings. The project aimed at (a) encouraging farmers to grow trees on their own farm land; (b) being self sufficient in timber production and decreasing wood imports; (c) creating additional employment among rural people; and (d) reducing the forest destruction in the country. Under the project, participating farmers would receive the support of 3,000 baht/rai (approx. US\$ 446/hectare) in five years of plantation. During 1994-2001, the Government utilized the budget of 7.41 billion baht (US\$ 176 million) to operate this project, of which 70 percent was used for the direct support on farmer plantations while the balance went to the administration. Thus far, almost 170,000 farmers/operators have joined this program and grew about 2.5 million rai (0.4 million hectares) of the economic forest.

2) The Fast-Growing Tree Reforestation Extension (FGTRE): The project, which was initiated in the same year as the PREP (1994), would provide incentives for program participants to replace cassava and paddy fields with fast-growing trees such as *neem Azardirachta indica*, *Eucalyptus camaldulensis*, *Acacia mangium*, and others. The incentives include free seedlings and fertilizer, and long-term low-interest loans. The project was terminated in 1998 following the 1997 economic crisis in Thailand. About 600,000 rai (90,000 hectares) of cassava and paddy area was converted into forest plantation from 1994-1997.

3) The Reforestation Campaign in Commemoration of the Royal Golden Jubilee for the King in 1996: Beginning in 1993, the Government had launched the campaign to encourage individuals and private organizations to plant 5 million rai (0.8 million hectares) of forests during 1994-1996. The participants would grow and pay the maintenance cost in 3 years (about 3,000 baht per rai or US\$ 65/hectare). As the target of reforestation and rehabilitation has not been reached, the government extended its first stage (1994-1996) into the second stage (1997-2002) and the third stage (2003-2007). Thus far, about 3.5 million rai or 70 percent of the target of protected forest area has been accomplished. In addition, the Royal Forestry Department is now preparing to launch a nationwide mangrove rehabilitation project, covering the entire coastline of the country, in celebration of the Queen's Sixth Cycle on her 72th birthday in 2004.

4) Community Forest: The education campaigns have been conducted continuously in both the mass media and in schools in order to stimulate Thai communities to realize the need of forest conservation. In response to the King's recommendation, the government also initiated the project called "community forest". This project is designed to deal with villagers who live in or nearby forest lands. Under the project, the government will encourage those villagers to control the use of forest and protect forest area on their own, through education and financial support.

In the Agricultural Development Plan, a component in the Ninth National Economic and Social Development Plan (2002-2006), a goal of national forest policy has been set to conserve and rehabilitate 30 percent of the total country area, including area for biodiversity conservation, national parks, wildlife sanctuaries, and watersheds. Additional 10 percent of total country area (around 32 million rai) will be promoted for public forest plantation, private forest plantation, and community forest plantation. In addition, a target area of 1.25 million rai (200,000 hectares) of mangrove forest to be conserved or rehabilitated has been proposed.

*Solid Wood Products Situation/Outlook*

Due mainly to the government ban on commercial logging in national forest areas and the immaturity of tree plantation in private reforested land, supplies of domestic hardwood timber are currently derived from timber from the Forest Industry Organization's logging and thinning in their reforested area, and that which is confiscated from illegal logging. According to the RFD, production of timber (legally licensed timber and confiscated timber) declined in recent years, reflecting a lack of mature reforested trees and the RFD's sophisticated regulation on logging approval. Total timber production in 2001 further declined from 46,370 cubic meters in 2000 to 41,330 cubic meters. The outlook of domestic timber production from forest areas in the next 3-5 years may increase to about 50,000-66,000 cubic meters, following increased timber production derived from private reforested area.

As a result of a ban on commercial logging in national forest areas, the Thai furniture industry has struggled to develop the use of parawood timber from rubber plantation to substitute for typical timber from forest area. Parawood timber, which is considered a hardwood, is derived from rubber trees, which reach their maturity for rubber tapping (at 20-25 years of age). Chips and small leftover pieces from parawood milling are used to make MDF and particle board. Due to ample supplies of mature rubber trees, production of parawood has increased significantly in the past decade. Production of parawood lumber in 2002 is likely to be about 1.7 million cubic meters, as opposed to 1.8 million cubic meters in 2001. Parawood rubber production should decrease in the next 3-5 years due to a downward trend in rubber tree area in recent years.

**TRADE**

Thailand's solid wood product imports (especially hardwood lumber) may increase by 4-5 percent in 2002 and 2003, reflecting increased market demand in domestic construction, decoration and renovations, decreased domestic supplies, and a likelihood of continued growing exports of wooden furniture and frames. According to trade sources, the U.S. market in Thai imports (in term of quantity) is anticipated to increase in 2002 and 2003, due to its price competitiveness against high-quality tropical woods (such as teak and Maka) and other non-American temperate hardwoods.

The Thai government is trying to stimulate domestic aggregate demand consumption to offset any slowdown in export demand. To that end, the recent official economic data revealed that the Thai economy is expected to grow by 4.0-4.25 percent in 2002, as opposed to 1.5 percent in 2001. Because of favorable economic prospect and other factors (as indicated in the Market Segment Analysis of Construction Sector), the demand for houses has been growing rapidly in 2001 and 2002, which drives the demand for solid woods used in construction and decoration. In addition, due to continued healthy tourism industry, several new hotels are being built and the many existing top-grade hotels are renovating their rooms and facilities. Although a downturn in the global economy will cause the international trade on wooden products to be sluggish in 2002 and 2003, Thailand may be successful in maintaining or increasing their exports of wooded furniture and other wooden products following the struggle of Thai exporters to increase their competitiveness in price and quality of products.

As indicated in Table 7, 8, 9, and 10 under the Statistical Information Section, 68 percent of total imports of solid wood commodities (by value) in 2001 belong to wood lumber, followed by logs (27 percent), veneer sheets (4 percent), and plywood (1 percent), respectively. Although imports of logs in 2001 decreased in value by 22 percent to US\$ 97.9 million, those of lumber increased sharply by 4 percent to US\$ 245.3 million. It should be noted that imports of U.S. lumber also increased significantly in quantity from 70,115 cubic meters in 2000 to 156,260 cubic meters in 2001, but the value of U.S. lumber exports declined 21 percent to US\$ 25.75 million in 2001. According to trade sources, this may be attributed to lower prices for U.S. solid woods and decreased imports of high-value U.S. solid woods such as cherry, walnut, and maples.

Thailand's neighboring countries (i.e., Malaysia, Burma, Cambodia, Laos, and Indonesia) remain major suppliers of hardwoods to Thailand. Hardwoods imported from Malaysia and Indonesia are mainly used for construction purposes. Meanwhile, high-value tropical hardwoods (such as teak, rose wood, and Ma-ka) are normally imported from Burma, Laos, and Cambodia, and used in the furniture and interior design industries. The U.S. supplies solid wood products, mainly hardwood lumber, to Thailand. Most of the imported U.S. hardwoods in 2001 are in species of oak, maple, poplar, and ash. U.S. hardwoods are used for flooring materials, furniture, wooden frames, picture frames, and interior design materials.

It is estimated that about 70 percent of imported U.S. hardwood is now utilized by export-oriented manufacturers, while the balance belongs to domestic-oriented manufacturers. The export-oriented manufacturers import U.S. hardwoods and other temperate hardwoods to make wooden furniture and picture frames. As U.S. woods are mostly competitive in both quality and price against other temperate hardwoods, the demand for imported U.S. hardwoods seems to be a function of the production of wooden products for export. Contrarily, the utilization of U.S. hardwoods by domestic-oriented manufacturers is still limited by a lack of understanding of U.S. woods, in the areas of the U.S. grading system, physical properties, applications, and the color variations of the U.S. species of hardwood. For example, demand for U.S. hardwoods (mainly oak and ash woods) for making flooring materials dropped sharply in recent years, as many local users were disappointed with the appearance and endurance of finished flooring. In reality, according to trade sources, this problem can be avoided if the user is better informed of the physical properties and appropriate application of U.S. woods.

There is a high potential for U.S. hardwood imports to grow in the Thai market, due to their competitiveness in price and quality. Although domestic consumption of high-value wooden products (such as flooring materials, furniture, and interior design) are dominated by teak/rose wood, the expensive and rising prices for these tropical hardwoods may encourage users to seek new types of hardwoods. However, the market strategies in promoting U.S. hardwoods in Thailand need to be directed toward overcoming importers' lack of technical awareness as mentioned above. Education should be a key component of market promotion plan. The American Hardwood Export Council (AHEC) should focus on conducting direct discussion/workshops with such target group as wood importers, architects, interior designers, etc. The workshop should be directed to the proper application of specific U.S. hardwoods and their cost-benefit value. In addition, AHEC may need to focus on certain species of U.S. hardwoods, but not all of them. For example, according to trade sources, U.S. oak wood has the highest strength for market promotion due to its competitiveness in price and quality, and consistent supplies.

## MARKET SEGMENT ANALYSIS

### *Construction Sector*

After a recovery in 2000, the real estate industry in Thailand is likely to bluster in 2002, due to a likelihood of sustainable growing Thai economy, the government's measures stimulating demand for housing, and financial institutions' competition in providing the mortgage loans for housing.

The Thai economy in 2002 is expected to grow by 4.0-4.25 percent following an expansion in domestic expenditure, from both private and government entities, and a recovery in private investment. As mentioned in the last annual report, overall interest rates for both deposits and loans have decreased sharply in the past few years, due to high liquidity in the financial market. Reduced deposit rates stimulated some wealthy people to withdraw their money for spending (including buying houses for the purpose of their new residence or for speculation). Meanwhile, reduced loan rates encouraged a group of medium-income people to borrow and buy a house, mostly for their own residence. The current time deposit rates are relatively low at 2.0-3.5 percent (against 10.0-13.0 percent in 1997), while the minimum retail rates (MRR) are 7.0-8.5 percent (as opposed to 15.0-16.0 percent in 1997). In addition, all financial institutions, due to their prevailing high liquidity, have competed aggressively in personal credit loans, especially housing loans. As a result, interest rates for housing loans have fallen to the low record in the most recent history. For example, the three-years fixed rate for house-mortgage loans are currently about 5-6 percent per annum.

The government has initiated a few measures to revitalize the real estate industry in anticipation of its impact on economic growth. A tax on registration for housing ownership was reduced in 2000, from 2 percent of assessed value to 0.01 percent. Recently, the government allowed buyers of residential/commercial buildings to count a certain amount of payment (100,000-200,000 baht) as annual spending for their personal income tax calculation. In the case that the buyers represent a company, they are allowed to deduct 20 percent of the assessed

property value as an initial allowance for the corporate income tax calculation. In addition, the Government Housing Bank would provide special loan rates and repayments term for all government employees.

A recent survey indicated that construction area permitted in municipal zone in Thailand increased by 18 percent from 7,600.6 thousand square meters in 2000 to 8,959.7 square meters in 2001. The construction area permitted in the first 5 months of 2002 (Jan-May) totalled 5279.7 thousand square meters. In addition, the new housing in Bangkok and vicinity grew from 32,038 units in 2000 to 34,023 units in 2001. This new housing in 2001 includes 9,691 units for housing project, 4,693 units for apartment and condominium, and 19,639 units for self-built housing, respectively. The new housing Bangkok and its vicinity may reach 36,000-37,000 units in 2002.

Thai developers and consumers prefer masonry and other non-wood materials in building house structures. While old-style wood-frame houses (mostly seen in rural areas and constructed of tropical wood products) are less popular, new-look-style houses (such as log home or country house) are a potential market for imported temperate hardwoods although they are still limited by the high construction cost.

As mentioned in the last annual report, flooring materials should be the best market prospect for U.S. hardwoods in construction segment due to an expansion in new house starts, the popularity of back-to-nature concept, a trend of increased numbers of expensive houses and the growing house-contractor business, and relatively inexpensive flooring materials from U.S. hardwoods. However, this potential may be limited by a lack of regular education/training to Thai contractors or architects on proper U.S. hardwoods for flooring application, and increased competition from other wooden flooring materials (such as veneered MDF boards or laminated MDF boards).

#### *Furniture & Interior Sector*

Due to a ban on commercial logging in national forest areas in late 1980's, the furniture industry in Thailand has changed dramatically. In addition to a switch to imported hardwoods, several furniture makers diversified their raw material use into parawood, medium density fiberboard (MDF), metal, rattan, etc. Regarding wooden furniture, parawood furniture currently accounts for about 60 percent of total production, followed by hardwood furniture (20 percent) and panel furniture (20 percent). Thailand has also diversified its furniture industry toward export-oriented manufacturing. It is estimated that about 70 percent of total wooden furniture production is now for export, with the balance going to domestic consumption.

The outlook for furniture and interior design products markets are favorable in 2002 and 2003 following a rapid increase in housing construction, continued growing tourism industry, and an anticipated growth of furniture exports to some degree. While demand for furniture and interior design products was sluggish in recent years, construction of new houses and an economic recovery should in general lead to a need to use new furniture for house decoration and renovation. In addition, the number of tourists is expected to increase 6-10 percent in 2002 and 2003, from 10.13 million persons in 2001. Because of this, a number of new hotels/resorts would emerge and many existing hotels have renovated their rooms and facilities.

After a 5 percent reduction in 2001 following a sluggish world demand, exports of wooden products, including furniture, are expected to register a 10-12percent growth (in US dollar terms) in 2002. Exports of wooden furniture and parts in the first half of 2002 (Jan-Jun) increased by 12 percent from the same period in 2001, to US\$ 253.64 million. Meanwhile, exports of other wood products (i.e., wooden construction materials, picture frames, tableware and kitchenware, carvings and ornaments) rose equally (12 percent) to US\$ 242.80 million. The largest importers of Thai wood products are the U.S. (37 percent for each), followed by Japan (27 percent), and EU countries (15 percent). The outlook for Thai wooden product exports in 2003 should continue to grow in anticipation of an economic recovery in the U.S. and Japan.

#### *Material Handling Industry*

Wooden pallets are normally used for packaging heavy or fragile products, especially in the shipping industry for export. As most exported products in Thailand are light-industry products and the use of alternative plastic or foam material has increased in popularity, the use of wood in the material handling industry has suffered. Due to relatively high transportation costs, the U.S. solid woods are not competitive against domestic woods and those from Thailand's neighboring countries in the material handling industry. Reflecting an estimated increase in Thai exports of electronic and computer equipments, the utilization of solid woods in packing materials should increase from estimated 90,000 cubic meters in 2001 to 100,000 cubic meters in 2002, nearly all of which are paranoit and plywood.

## STATISTICAL TABLES

Table 1: Thailand's Strategic Indicator Table

FOREST PRODUCT						
STRATEGIC INDICATOR TABLES FOR (COUNTRY)						
(Please do not add/delete rows or columns -- note and other info must be added below row 110 -- thank you!)						
CONSTRUCTION MARKET						
Country: Thailand	2001	2002	2003			
Report Year: 2002	Calender Year	Calender Year	Calender Year			
Total Housing Starts (thousand units)	68	75	80			
--of which, wood frame (thousand units)	4	5	6			
--of which, steel, masonry, other materials (thousand units)	64	70	74			
--of total starts, residential (thousand units)	62	65	67			
----of residential, single family (thousand units)	59	62	64			
----of residential, multi-family (thousand units)	3	3	3			
--of total starts, commercial (thousand units)	8	10	13			
Total Value of Commercial Construction Market (\$US mil)	170	180	190			
Total Value of Repair and Remodeling Market (\$US million)	350	360	370			
FURNITURE & INTERIORS MARKET						
Country: Thailand	2001	2002	2003			
Report Year: 2002	Calender Year	Calender Year	Calender Year			
Total Housing Starts (number of units)	68,000	75,000	80,000			
Total Number of Households)	n/a	n/a	n/a			
Furniture Production (\$US million)	960	1,040	1,100			
Total Furniture Imports (\$US million)	4	6	8			
Total Furniture Exports (\$US million)	660	700	740			
Interiors Market Size (\$US million)	65	70	75			
MATERIAL HANDLING MARKET						
Country: Thailand	2001	2002	2003			

Report Year: 2002	Calender Year	Calender Year	Calender Year			
Total Value of Industrial Output (\$US million)	n/a	n/a	n/a			
New Pallet Production (million units)	n/a	n/a	n/a			
FOREST AREA						
Country: Thailand	2001	2002	2003			
Report Year: 2002	Calender Year	Calender Year	Calender Year			
Total Land Area (million hectares)	51.20	51.20	51.20			
Total Forest Area (million hectares)	12.90	13.00	13.00			
--of which, Commercial ('000 hectares)	650	660	665			
----of commercial, tropical hardwood ('000 hectares)	650	660	665			
----of commercial, temperate hardwood ('000 hectares)	0	0	0			
----of commercial, softwood ('000 hectares)	0	0	0			
Forest Type						
--of which, virgin ('000 hectares)	11,500	11,500	11,495			
--of which, plantation ('000 hectares)	1,480	1,490	1,495			
--of which, other commercial (regrowth) ('000 hectares)	10	10	10			
Total Volume of Standing Timber (thousand cubic meters)	1,202,000	1,203,000	1,024,000			
--of which, Commercial Timber ('000 cum)	60,000	62,000	64,000			
Annual Timber Removal ('000 cum) 1/	950	1,000	1,050			
Annual Timber Growth Rate ('000 cum)	10,900	11,000	11,200			
Annual Allowable Cut ('000 cum)	3,600	3,650	3,700			
1/ If Removals exceeds growth rate, analyze impact in text.						
WOOD PRODUCTS SUBSIDIES						
Country: Thailand	2001	2002	2003			
Report Year: 2002	Calender Year	Calender Year	Calender Year			
Total Solid Wood Export Subsidy Outlay (\$US million)	0	0	0			
Is there a ban on the export of logs, lumber, or veneer? 1/	No	No	No			
Are there export taxes (yes/no)? 2/	Yes	Yes	Yes			

Total Wood Production Subsidy (\$US million)	0	0	0			
Scope (thousands of hectares)	0	0	0			
Are there other wood products export expansion activities? 1/	No	No	No			
1/ If yes, describe in report.						
2/ If yes, identify in Tariff and Tax Strategic Indicator Table.						
FOREST PRODUCT TARIFFS AND TAXES (percent)	Product Description	Tariff Current Year	Tariff Following Year	Other Import Taxes/Fees	Total Cost of Import	Export Tax
Country: Thailand	1/				2/	
Report Year: 2002						
4401.00		1.0	1.0	7% Vat	8.1	40.0
4403.00		1.0	1.0	7% Vat	8.1	40.0
4404.00		1.0	1.0	7% Vat	8.1	40.0
4405.00		1.0	1.0	7% Vat	8.1	40.0
4406.00		1.0	1.0	7% Vat	8.1	40.0
4407.00		1.0-5.0	1.0-5.0	7% Vat	8.07-12.35	40.0
4408.00		1.0	1.0	7% Vat	8.1	40.0
4409.00		20.0	20.0	7% Vat	28.4	40.0
4410.00		20.0	20.0	7% Vat	28.4	0.0
4411.00		20.0	20.0	7% Vat	28.4	0.0
4412.00		20.0	20.0	7% Vat	28.4	0.0
4413.00		10.0	10.0	7% Vat	17.7	0.0
4414.00		30.0	30.0	7% Vat	39.1	0.0
4415.00		30.0	30.0	7% Vat	39.1	0.0
4416.00		30.0	30.0	7% Vat	39.1	0.0
4417.00		30.0	30.0	7% Vat	39.1	0.0
4418.00		30.0	30.0	7% Vat	39.1	0.0
4419.00		30.0	30.0	7% Vat	39.1	0.0
4420.00		30.0	30.0	7% Vat	39.1	0.0
4421.00		30.0	30.0	7% Vat	39.1	0.0
4422.00		n/a	n/a	7% Vat	n/a	n/a
4423.00		n/a	n/a	7% Vat	n/a	n/a
4424.00		n/a	n/a	7% Vat	n/a	n/a
4425.00		n/a	n/a	7% Vat	n/a	n/a

Pre-fabricated Houses, a subsection under chapter 96						
1/ Insert additional lines for Commodity tariff identification should tariffs vary within the four-digit designation						
for major products exported by the U.S. (e.g., 4412.19: softwood plywood 3%, 4412.XX: other plywood, 9%).						
2/ Calculate as tariff plus other import taxes/fees assuming a commodity value of \$100.						

Table 2: PS&amp;D Table for Tropical Hardwood Logs

PSD Table						
Country	Thailand					
Commodity	Tropical Hardwood Logs				1000 CUBIC METERS	
	Revised2001		Preliminary2002		Forecast2003	
	Old	New	Old	New	Old	New
Market Year Begin	01/2001		01/2002		01/2003	
Production	4850	4900	4800	4850	0	4800
Imports	600	517	700	500	0	500
TOTAL SUPPLY	5450	5417	5500	5350	0	5300
Exports	0	0	0	0	0	0
Domestic Consumption	5450	5417	5500	5350	0	5300
TOTAL DISTRIBUTION	5450	5417	5500	5350	0	5300

Table 3: PS&amp;D Table for Temperate Hardwood Lumber

PSD Table						
Country	Thailand					
Commodity	Temperate Hardwood Lumber				1000 CUBIC METERS	
	Revised2001		Preliminary2002		Forecast2003	
	Old	New	Old	New	Old	New
Market Year Begin	01/2001		01/2002		01/2003	
Production	8	8	5	8	0	5
Imports	60	186	70	200	0	210
TOTAL SUPPLY	68	194	75	208	0	215
Exports	5	5	5	5	0	5
Domestic Consumption	63	189	70	203	0	210
TOTAL DISTRIBUTION	68	194	75	208	0	215

Table 4: PS&amp;D Table for Tropical Hardwood Lumber

PSD Table						
Country	Thailand					
Commodity	Tropical Hardwood Lumber				1000 CUBIC METERS	
	Revised2001		Preliminary2002		Forecast	2003
	Old	New	Old	New	Old	New
Market Year Begin	01/2001		01/2002		01/2003	
Production	2280	2350	2200	2300	0	2280
Imports	1200	1045	1100	1100	0	1200
TOTAL SUPPLY	3480	3395	3300	3400	0	3480
Exports	400	400	300	350	0	400
Domestic Consumption	3080	2995	3000	3050	0	3080
TOTAL DISTRIBUTION	3480	3395	3300	3400	0	3480

Table 5: PS&amp;D Table for Hardwood Veneer

PSD Table						
Country	Thailand					
Commodity	Hardwood Veneer				1000 CUBIC METERS	
	Revised2001		Preliminary2002		Forecast2003	
	Old	New	Old	New	Old	New
Market Year Begin	01/2001		01/2002		01/2003	
Production	135	150	145	155	0	160
Imports	15	12	10	15	0	20
TOTAL SUPPLY	150	162	155	170	0	180
Exports	2	2	2	2	0	2
Domestic Consumption	148	160	153	168	0	178
TOTAL DISTRIBUTION	150	162	155	170	0	180

Table 6: PS&amp;D Table for Hardwood Plywood

PSD Table						
Country	Thailand					
Commodity	Hardwood Plywood				1000 CUBIC METERS	
	Revised2001		Preliminary2002		Forecast2003	
	Old	New	Old	New	Old	New
Market Year Begin	01/2001		01/2002		01/2003	
Production	80	80	85	85	0	90
Imports	5	8	5	10	0	10
TOTAL SUPPLY	85	88	90	95	0	100
Exports	2	2	2	2	0	2
Domestic Consumption	83	86	88	93	0	98
TOTAL DISTRIBUTION	85	88	90	95	0	100

Table 7: Thailand's Log Imports in 2000 and 2001

Origin	2000		2001	
	Quantity	Value	Quantity	Value
	(Cubic Meters)	(US\$ 1,000)	(Cubic Meters)	(US\$ 1,000)
U.S.A.	1,211	451	945	822
Malaysia	128,509	15,518	83,186	10,716
Myanmar	105,630	67,552	123,611	48,524
Laos	82,069	23,884	98,613	15,054
New Zealand	80,408	5,721	71,673	4,985
Indonesia	51,590	6,568	107,319	13,139
South Africa	0	0	5,330	767
Australia	7,290	525	6,828	412
Papua New Guinea	8,087	1,536	0	0
Mauritania	299	66	0	0
Solomon Islands	12,124	1,764	11,602	1,453
Others	10,151	2,535	7,753	2,041
TOTAL	487,368	126,120	516,860	97,913
Source: Department of Royal Forest				

Table 8: Thailand's Lumber Imports in 2000 and 2001

Origin	2000		2001	
	Quantity	Value	Quantity	Value
	(Cubic Meters)	(US\$ 1,000)	(Cubic Meters)	(US\$ 1,000)
U.S.A.	70,115	32,395	156,260	25,746
Malaysia	579,405	119,062	650,934	120,283
Myanmar	14,579	9,402	20,238	10,731
Laos	199,788	34,866	304,106	50,966
New Zealand	50,364	9,085	46,114	8,390
Cambodia	7,202	2,300	5,116	1,356
China	4,618	2,853	3,959	2,686
Brazil	32,018	7,268	38,835	8,653
Indonesia	15,841	3,815	11,185	2,487
Canada	13,059	2,772	18,040	2,975
Poland	1,799	967	2,360	1,326
Australia	2,566	1,058	3,213	1,213
Others	35,728	9,504	25,110	8,514
TOTAL	1,027,082	235,347	1,285,470	245,326
Source: Department of Royal Forest				

Table 9: Thailand's Veneer Sheet Imports in 2000 and 2001

Origin	2000		2001	
	Quantity	Value	Quantity	Value
	(Cubic Meters)	(US\$ 1,000)	(Cubic Meters)	(US\$ 1,000)
U.S.A.	1,032	2,563	859	2,049
Indonesia	1,936	3,021	1,624	2,874
Malaysia	3,562	1,311	1,353	543
Finland	1,495	1,223	1,091	894
Italy	43	206	138	491
Taiwan	55	81	628	350
Germany	226	733	238	835
China	1,006	871	1,816	1,712
Brazil	2,075	959	1,464	618
Myanmar	1,782	699	1,188	575
Canada	62	91	0	0
Others	1,592	1,560	1,739	1,504
TOTAL	14,866	13,318	12,138	12,445
Source: Department of Royal Forest				

Table 10: Thailand's Plywood Imports in 2000 and 2001

Origin	2000		2001	
	Quantity	Value	Quantity	Value
	(Cubic Meters)	(US\$ 1,000)	(Cubic Meters)	(US\$ 1,000)
U.S.A.	0	0	8	7
Malaysia	1,862	720	1,366	493
Indonesia	5,494	2,550	5,074	2,271
Laos	448	138	296	86
Taiwan	2	3	274	162
Singapore	263	109	385	185
Myanmar	0	0	0	0
Others	236	62	448	176
TOTAL	8,305	3,582	7,851	3,380
Source: Department of Royal Forest				

Table 11: Thailand's Lumber Exports in 2000 and 2001

Origin	2000		2001	
	Quantity	Value	Quantity	Value
	(Cubic Meters)	(US\$ 1,000)	(Cubic Meters)	(US\$ 1,000)
U.S.A.	9,475	13,854	10,306	11,044
Japan	31,141	27,026	32,930	27,426
Hong Kong	183,340	30,863	144,004	24,678
Malaysia	14,139	2,375	10,685	1,757
Vietnam	27,508	5,373	16,644	2,890
Netherlands	2,955	3,502	2,754	3,486
Australia	4,209	5,449	4,005	5,059
China	77,780	14,286	157,448	24,001
Taiwan	9,584	3,519	6,080	1,473
Spain	2,366	3,403	3,626	4,202
United Kingdom	2,361	2,693	2,496	2,809
Others	13,875	17,965	11,578	15,197
TOTAL	378,733	130,308	402,556	124,022
Source: Department of Royal Forest				

Table 12: Thailand's Veneer Sheet Exports in 2000 and 2001

Table 12: Thailand's Veneer Sheets Exports in 2000 and 2001				
Origin	2000		2001	
	Quantity (Cubic Meters)	Value (US\$ 1,000)	Quantity (Cubic Meters)	Value (US\$ 1,000)
U.S.A.	156	672	75	228
Denmark	784	3,328	665	3,086
U.K.	155	611	233	1,012
France	186	840	227	1,040
Germany	280	561	102	331
Italy	66	351	63	265
Singapore	36	240	32	195
Netherlands	63	267	81	306
Taiwan	91	150	46	12
Others	409	1,350	462	1,806
TOTAL	2,226	8,370	1,986	8,281
Source: Department of Royal Forest				

Table 13: Thailand's Plywood Exports in 2000 and 2001

Origin	2000		2001	
	Quantity	Value	Quantity	Value
	(Cubic Meters)	(US\$ 1,000)	(Cubic Meters)	(US\$ 1,000)
U.S.A.	76	31	170	87
Myanmar	12	3	0	0
India	1,886	1,044	1,346	812
Laos	95	27	47	15
U.K.	127	52	125	65
Bangladesh	809	133	501	75
Nepal	162	71	27	10
Others	249	110	521	304
TOTAL	3,416	1,471	2,737	1,368
Source: Department of Royal Forest				